

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



Consommation
et Corporations Canada

Consumer and
Corporate Affairs Canada (21) (A1)

2,015,111

Bureau des brevets

Patent Office

(22)

1990/04/23

Ottawa, Canada
K1A 0C9

(43)

1991/10/23

(52)

217-121

C.R. CL. 222-90

(51) INTL.CL.⁵ B65D-85/00; A61J-1/00

(19) (CA) **APPLICATION FOR CANADIAN PATENT** (12)

(54) **New Binary Dispenser for the Application of Fluids,
Semi-Fluids or Semi-Solids**

(72) **Woo, Tom Y. - Canada ;
Campbell, Janis P. - Canada ;**

(73) **Same as inventor**

(57) **165 Claims**

Notice: The specification contained herein as filed

Canada

CCA 3254 (10)

ABSTRACT:

A unique "binary dispenser" for housing and applying various substances to various surfaces is proposed. This device is used as a means for the application of various substances (such as, but not limited to, liquids, semi-liquids, semi-solids, gels, ointments, lotions, creams, suspensions, solutions) to various surfaces (such as, but not limited to, biologic surfaces such as hair, skin or nails or to any non-biologic surface such as any nonbiologic surface). Currently, most if not all, substances (biologic and non-biologic agents) are applied via a container (such as a tube, bottle or dispenser) which has a single chamber which houses the substance. This device involves the use of an object, such as but not limited to, a container, tube, dispenser, bottle, or other such device which has two or more separate chambers, each containing a separate different substance.

FIELD OF INVENTION:

The present invention relates to a binary device which is used as a means to apply an effective amount of various substances, comprising, but not limited to, biologically active agents (such as medicines, foods or cosmetic agents) or non-biologically active agents (such as glues, shampoos) having a desired effect on surfaces comprising, but not limited to, biologic surfaces or non-biologic inert surfaces.

BACKGROUND OF INVENTION:

- 10 The term "skin" is used in the broad context within to include any condition be it normal or abnormal of the skin, hair, nails or mucous membranes.

A container is used in the context within this patent application to denote any object which can house any substance or substances comprising of, but not limited to, biologically active agent or agents or non-biologically active agent or agents. The term "device" is used to describe the present invention which houses any substance. The device may be a container such as, but not limited to, a tube, bottle or any other dispenser. The device's composition may be
20 comprised of any material including, but not limited to, ceramic, plastic, steel, rubber, metal or paper.

The device may be emptied by the action of gravity, or pump, squeezing the device or any other mechanism to deliver or administer the contents.

Currently medicinal and cosmetic agents used in the treatment of

skin conditions (and other internal medical conditions) are delivered to the skin using a container which has a cavity within it. That is to say that there is a single container which has only one substance which is to be administered. The container can be in the form of a tube or bottle. Quite frequently two or more medicinal or cosmetic substances cannot be packaged in the same container due to substance to substance interactions which can effect the stability of the substances utilized, can cause undue drug reactions or may cause degradation, etc., of the
10 substances. This invention refers to the use of a device which has one or more dividers in it thereby defining two or more chambers within the device. The divider (or dividers) separate and define the two (or more) chambers thereby keeping the two (or more) preparations separate. This would ensure that the substances within each chamber would not interact with each other in an adverse way.

As an example topical benzoyl peroxides (therapeutic agents for treatment of acne) are not to be mixed with topical antibiotics due to stability problems and resultant degradation of both benzoyl
20 peroxide and the antibiotic product. In using these two ingredients in a device which has two separate chambers, the antibiotic preparation can be inserted into one chamber and the benzoyl peroxide preparation in the other, this container allows for the simultaneous or sequential application of these two preparations to be applied to the skin. This device comprises a single convenient container to be used for the application to two separate substances

as opposed to two separate containers each with their own preparation.

Other examples of substances which can be used in this device with two separate chambers are, (but not limited to):

1. (a) Tretinoin - Hydroquinone
(b) Tretinoin - topical antibiotic

2. (a) steroid creams - Urea
(b) steroid creams - Salicylic Acid
(c) steroid creams - Lactic Acid
(d) steroid creams - Pramoxine
10 (e) steroid creams - Tretinoin
(f) steroid creams - Hydroquinones
(g) steroid creams - Ketoconazole
(h) steroid creams - antibiotic

3. Minoxidil - Tretinoic Acid

4. Anthranol - steroid creams

5. Tretinoin - benzoyl peroxide.

6. Shampoo - conditioners

7. Nail polish - nail polish remover

8. Cosmetic agent - cosmetic agent

- 20 Although this device generally refers to a container with two chambers, this device can also comprise of two or more dividers which define three or more separate chambers and therefore use of three or more separate substances.

The embodiments of an invention in which an exclusive property or privilege is claimed are defined as follows:

1. A device which is used as a means to contain or house various substances or preparations, the device comprising of one or more dividers within the device thereby delineating the device to contain two or more separate chambers.
2. The device of claim #1 wherein the chambers are of equal volume, size or dimension.
3. The device of claim #1 wherein the chambers are of unequal
10 volume, size or dimension.
4. The device of claim #1 wherein the device contains two separate chambers, the opening for each chamber (in order to dispense the substances or preparations) may be located on opposite sides of the container; or may be located directly adjacent; or may be located any distance apart between opposite sides of the container to directly adjacent.
5. The device of claim #1 to be termed a "binary dispenser", "binary tube", "binary bottle", "binary container", and/or "binary device".
- 20 6. The device of claim #1 wherein the device contains three separate chambers, the opening for each chamber (in order to dispense the substances) may be located on opposite sides of the container; or may be located directly adjacent; or may be located any distance apart between opposite sides of the container

to directly adjacent.

7. The device of claim #1 wherein the device contains a divider which is impermeable or semi-permeable to some or all of the substances in each chamber.

8. The device of claim #1 wherein the device contains four separate chambers. The opening for each chamber (in order to dispense the substances) may be located on opposite sides of the container; or may be located directly adjacent; or may be located any distance apart between opposite sides of the
10 container to directly adjacent.

9. The device of claim #1 wherein the device is used as a means to contain any substances or preparations comprising of, but not limited to, biologically, chemically, electrically active or inert substances.

10. The device of claim #1 wherein the device is used as a means to contain substances or preparations comprising of, but not limited to, foods, cosmetics, or medicinal agents.

11. The device of claim #1 wherein the device is used as a means to contain preparations or substances which may be liquid, semi-
20 solid or semi-liquid comprising of, but not limited to, either combination of or singly:

A - creams

B - ointments

C - suspensions

D - solutions

E - pastes

F - gels

G - incorporating an inert solid compound or compounds

I - lotions

J - semi-solid substances or preparations

K - semi-liquid substances or preparations

L - liquid substances or preparations

12. The device of claim #1 wherein the device is used as a means
to contain substances or preparations for any use comprising of,
10 but not limited to, use in any biologic system or systems such
as, but not limited to, application in medical or non-medical
disorders, or for use in any non-biological system or systems
such as, but not limited to, inert or dynamic surfaces. This can
include any liquid, semi-liquid, semi-solid or galenical form
including, but not limited to, gel, cream, lotion, ointment
suspension, solution, paste, or incorporating an inert compound.

13. The device of claim #1 wherein the device is used as a means
to contain substances or preparations as is claimed in claim #9,
wherein one preparation is a topical antibiotic (any topical
20 antibiotic and in any concentration or amounts) and another
preparation is a benzoyl peroxide (in any concentration or any
amount), other substances or preparations may or may not
accompany these two.

14. The device of claim #1 wherein the device is used as a means
to contain preparations as is claimed in claim #9, wherein one
preparation is a topical antibiotic (any topical antibiotic and

in any concentration or amounts) and another preparation is a topical tretinoin (in any concentration or any amount), other substances or preparations may or may not accompany these two.

15. The device of claim #1 wherein the device is used as a means to contain preparations as is claimed in claim #9, wherein one preparation is a topical benzoyl peroxide (any benzoyl peroxide and in any concentration or amounts) and another preparation is a topical tretinoin (in any concentration or any amount), other substances or preparations may or may not accompany these
10 two.

16. The device of claim #1 wherein the device is used as a means to contain substances or preparations for the treatment of cosmetic disorders such as, but not limited to, facial wrinkles, hyperpigmentation, dry skin, flaky skin, itchy skin.

17. The device of claim #1 wherein the device is used as a means to contain medications or agents utilized in treatment of dermatologic or nondermatologic diseases, disorders, or states of any nature depending on the preparation that is used in the dispenser.

20 18. The device of claim #1 wherein the device is used as a means to contain substances or preparations which are for non-biologic use comprising of, but not limited to, glues and epoxy.

19. The device of claim #1 wherein the device is used as a means to contain substances or preparations to be used to treat other

biologic functions comprising of, but not limited to, shampoo and cream rinse.

20. The device of claim #1 wherein the device may be comprised of, but not limited to, glass, plastic, metal, ceramic, rubber, paper or any other material or any combination thereof.

21. The device of claim #1 wherein the device may be comprised of plastic materials.

22. The device of claim #1 wherein the device may be comprised of metal materials.

10 23. The device of claim #1 wherein the device may be comprised of glass materials.

24. The device of claim #1 wherein the device may be comprised of ceramic materials.

25. The device of claim #1 wherein the device may be comprised of rubber materials.

26. The device of claim #1 wherein the device may be comprised of paper materials.

27. The device of claim #1 wherein the device is used as a means to contain preparations for human use, inert or dynamic nonbiologic
20 use, veterinarian application or other biological or non-biological uses.

28. The device of claim #1 wherein the device comprises of another

opening and closing device which is used as a means to open and close the chambers within the device.

29. An opening and closing device as claimed in claim #27 above, wherein the opening and closing device is comprised of a single unit or is comprised of two or more separate units and is composed of any composition, comprising of, but not limited to, glass, ceramic, rubber, paper, metal, plastic or any other material.

30. The device of claim #1 wherein the device may be emptied by the action of gravity, squeezing the device, a pump, or any other
10 mechanism to deliver or administer the contents.

31. The device of claim #1 wherein the pump or any other mechanism to administer the contents of the device is comprised of, but not limited to, ceramic, plastic, steel, rubber, metal, paper or any other material or any combination thereof.

32. The device of claim #1 wherein the pump or any other mechanism to administer the contents of the device is comprised of ceramic.

33. The device of claim #1 wherein the pump or any other mechanism to administer the contents of the device is comprised of plastic.

34. The device of claim #1 wherein the pump or any other mechanism
20 to administer the contents of the device is comprised of metal.

35. The device of claim #1 wherein the pump or any other mechanism to administer the contents of the device is comprised of paper.

36. The device of claim #1 wherein the pump or any other mechanism

to administer the contents of the device is comprised of rubber.

37. A method of applying substances or preparations to various surfaces administering an effective amount of substances or preparations compatible with a desired effect, the device which is used as a means of applying the substance or preparation is a device comprising of one or more dividers within the device thereby delineating the device to contain two or more separate chambers.

38. The method of claim #36 wherein the chambers are of equal volume, size or dimension.

10 39. The method of claim #36 wherein the chambers are of unequal volume, size or dimension.

40. The method of claim #36 wherein the device contains two separate chambers, the opening for each chamber (in order to dispense the substances or preparations) may be located on opposite sides of the container; or may be located directly adjacent; or may be located any distance apart between opposite sides of the container to directly adjacent.

41. The method of claim #36 wherein the device is to be termed a "binary dispenser", "binary tube", "binary bottle", "binary
20 container" and/or "binary device".

42. The method of claim #36 wherein the device contains three separate chambers, the opening for each chamber (in order to dispense the substances) may be located on opposite sides of the container; or may be located directly adjacent; or may be located

any distance apart between opposite sides of the container to directly adjacent.

43. The method of claim #36 wherein the device contains a divider which is impermeable or semi-permeable to some or all of the substances in each chamber.

44. The method of claim #36 wherein the device contains four separate chambers. The opening for each chamber (in order to dispense the substances) may be located on opposite sides of the container; or may be located directly adjacent; or may be located
10 any distance apart between opposite sides of the container to directly adjacent.

45. The method of claim #36 wherein the device is used as a means to contain any substances or preparations comprising of, but not limited to, biologically, chemically, electrically active or inert substances.

46. The method of claim #36 wherein the device is used as a means to contain substances or preparations comprising of, but not limited to, foods, cosmetics or medicinal agents.

47. The method of claim #36 wherein the device is used as a means
20 to contain preparations or substances which may be liquid, semi-solid or semi-liquid, comprising of, but not limited to, either combination of or singly:

A - creams

B - ointments

- C - suspension
- D - solution
- E - paste
- F - gel
- G - incorporating an inert solid compounds.
- I - lotion
- J - semi-solid substances or preparations
- K - semi-liquid substances or preparations
- L - liquid substances or preparations

10 48. The method of claim #36 wherein the device is used as a means to contain substances or preparations for any use comprising of, but not limited to, use in any biologic system or systems such as but not limited to, application in medical or non-medical disorders or for use in any non-biological system or systems such as, but not limited to, inert or dynamic substances. This can include any semi-liquid, liquid, semi-solid or galenical form including, but not limited to, gel, cream, lotion, ointment suspension, solution, paste, or incorporating an inert compound.

20 49. The method of claim #36 wherein the device is used as a means to contain substances or preparations as is claimed in claim #9, wherein one preparation is a topical antibiotic (any topical antibiotic and in any concentration or amounts) and another preparation is a benzoyl peroxide (in any concentration or any amount), other substances or preparations may or may not accompany these two.

50. The method of claim #36 wherein the device is used as a means

to contain preparations as is claimed in claim #9 wherein one preparation is a topical antibiotic (any topical antibiotic and in any concentration or amounts) and another preparation is a topical tretinoin (in any concentration or any amount), other substances or preparations may or may not accompany these two.

51. The method of claim #36 wherein the device is used as a means to contain substances or preparations for the treatment of cosmetic disorders such as, but not limited to, facial wrinkles, hyperpigmentation, dry skin, flaky skin, itchy skin.

10 52. The method of claim #36 wherein the device is used to contain medications or agents utilized in treatment of dermatologic or nondermatologic diseases, disorders or states of any nature depending on the preparation that is used in the dispenser.

53. The method of claim #36 wherein the device is used as a means to contain substances or preparations which are for non-biologic use comprising of, but not limited to, glues and epoxy.

54. The method of claim #36 wherein the device is used as a means to contain substances or preparations to be used to treat other biologic functions comprising of, but not limited to, shampoo and
20 cream rinse.

55. The method of claim #36 wherein the device may be comprised of, but not limited to, glass, plastic, metal, ceramic, rubber, paper or any other material or any combination thereof.

56. The method of claim #36 wherein the device may be comprised of

plastic materials.

57. The method of claim #36 wherein the device may be comprised of metal materials.

58. The method of claim #36 wherein the device may be comprised of glass materials.

59. The method of claim #36 wherein the device may be comprised of ceramic materials.

60. The method of claim #36 wherein the device may be comprised of rubber materials.

10 61. The method of claim #36 wherein the device may be comprised
of paper materials.

62. The method of claim #36 wherein the device is used as a means to contain preparations for human use, inert or dynamic nonbiologic use, veterinarian application or other biological or non-biological uses.

63. The method of claim #36 wherein the device comprises of another opening and closing device which is used as a means to open and close the chambers within the device.

64. The method of claim #36 wherein the opening and closing device is comprised of a single unit or is comprised of two or more separate units and is composed of any composition, comprising of, but not limited to, glass, ceramic, metal, rubber, paper, plastic or any other material.

65. The method of claim #36 wherein the device may be emptied by the action of gravity, squeezing the device, a pump or any other mechanism to deliver or administer the contents.
66. The method of claim #36 wherein the pump or any other mechanism to administer the contents of the device is comprised of, but not limited to, ceramic, plastic, steel, rubber, metal, paper or any other material or any combination thereof.
67. The method of claim #36 wherein the pump or any other mechanism to administer the contents of the device is comprised of ceramic.
- 10 68. The method of claim #36 wherein the pump or any other mechanism to administer the contents of the device is comprised of plastic.
69. The method of claim #36 wherein the pump or any other mechanism to administer the contents of the device is comprised of metal.
70. The method of claim #36 wherein the pump or any other mechanism to administer the contents of the device is comprised of paper.
71. The method of claim #36 wherein the pump or any other mechanism to administer the contents of the device is comprised of rubber.
72. The device of claim #1 which is used as a means to apply substances or preparations wherein:
- 20 (a) at least one substance is erythrosycin or erythromycin derivative in a concentration of 2% (grams per 100 cc)
- (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)

73. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams per 100 cc)
- (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)

74. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams per 100 cc)
- (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

75. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams/100 cc)
- (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

76. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams per 100 cc)
- (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams/100 cc)

77. The device of claim #1 which is used as a means to apply

substances wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams per 100 cc)

(b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams/100 cc)

78. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams per 100 cc)

10 (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams/100 cc)

79. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams per 100 cc)

(b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams/100 cc)

80. The device of claim #1 which is used as a means to apply substances wherein:

20 (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .01% (grams/100 cc)

81. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of .01% (grams/100 cc)

82. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of 10 .025% (grams/100 cc)

83. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of .025% (grams/100 cc)

84. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

85. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is erythromycin or erythromycin

derivative in a concentration of 2% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

86. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

10 87. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

88. The device of claim #1 which is used as a means to apply substances or preparations wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams per 100 cc)

20 (b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

89. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

90. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

91. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams/100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

92. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .025% (grams/100 cc)

93. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in

a concentration of .025% (grams/100 cc)

94. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .025% (grams/100 cc)

95. The device of claim #1 which is used as a means to apply substances wherein:

10 (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .025% (grams/100 cc)

96. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

20 97. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

98. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

99. The device of claim #1 which is used as a means to apply substances wherein:

10 (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

100. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

20 101. The device of claim #1 which is used as a means to apply substances wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

102. The device of claim #1 which is used as a means to apply

substances wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

103. The device of claim #1 which is used as a means to apply substances wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams/100 cc)
- 10 (b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

104. The device of claim #1 which is used to apply substances wherein:

- (a) at least one substance is a shampoo
- (b) at least one substance is a hair conditioner

105. The device of claim #1 which is used to apply substances wherein:

- (a) at least one substance is a Tretinoin
- (b) at least one substance is a Hydroquinone

106. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a Tretinoin
- 20 (b) at least one substance is a topical antibiotic

107. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Urea

108. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Salicylic Acid

109. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Lactic Acid

110. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Pramoxine

111. The device of claim 1 which is used to apply substances wherein:

- 10 (a) at least one substance is a steroid cream
- (b) at least one substance is a Tretinoin

112. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Hydroquinone

113. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Ketoconazole

114. The device of claim 1 which is used to apply substances wherein:

- 20 (a) at least one substance is a steroid cream
- (b) at least one substance is a antibiotic

115. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is Minoxidil
- (b) at least one substance is Tretinoic Acid

116. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is Anthranol
- (b) at least one substance is a steroid cream

117. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is Tretinoin
- (b) at least one substance is benzoyl peroxide

118. The device of claim 1 which is used to apply substances wherein:

- (a) at least one substance is a nail polish
- (b) at least one substance is a nail polish remover

10 119. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams per 100 cc)
- (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)

120. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams per 100 cc)
- 20 (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)

121. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is erythromycin or erythromycin

derivative in a concentration of 2% (grams per 100 cc)

(b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

122. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythroycin or erythroycin derivative in a concentration of 1% (grams per 100 cc)

(b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

10 123. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythroycin or erythroycin derivative in a concentration of 2% (grams per 100 cc)

(b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

124. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythroycin or erythroycin derivative in a concentration of 1% (grams per 100 cc)

20 (b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams/100 cc)

125. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythroycin or erythroycin derivative in a concentration of 2% (grams per 100 cc)

(b) at least one substance is benzoyl peroxide or benzyl peroxide derivative in a concentration of 20% (grams/100 cc)

126. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams per 100 cc)

(b) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams/100 cc)

127. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .01% (grams/100 cc)

128. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 2% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .01% (grams/100 cc)

129. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythromycin or erythromycin derivative in a concentration of 1% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of

.025x (grams/100 cc)

130. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythroycin or erythroycin derivative in a concentration of 2x (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .025x (grams/100 cc)

131. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

10 (a) at least one substance is erythroycin or erythroycin derivative in a concentration of 1x (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05x (grams/100 cc)

132. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythroycin or erythroycin derivative in a concentration of 2x (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05x (grams/100 cc)

20 133. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is erythroycin or erythroycin derivative in a concentration of 1x (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1x (grams/100 cc)

134. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is erythrosycin or erythrosycin derivative in a concentration of 2% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

135. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams per 100 cc)
- (b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

136. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams per 100 cc)
- (b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

137. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams per 100 cc)
- (b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

138. A preparation which is applied to various surfaces to obtain

a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .01% (grams/100 cc)

139. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams per 100 cc)

10 (b) at least one substance is tretinoin or tretinoin derivative in a concentration of .025% (grams/100 cc)

140. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .025% (grams/100 cc)

141. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

20 (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams per 100 cc)

(b) at least one substance is tretinoin or tretinoin derivative in a concentration of .025% (grams/100 cc)

142. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams per 100 cc)
- (b) at least one substance is tretinoin or tretinoin derivative in a concentration of .025% (grams/100 cc)

143. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of

10 .05% (grams/100 cc)

144. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

145. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams/100 cc)
- (b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

146. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is benzoyl peroxide or benzoyl peroxide

derivative in a concentration of 20% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .05% (grams/100 cc)

147. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 2.5% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

10 148. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 5% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

149. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 10% (grams/100 cc)

20 (b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

150. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

(a) at least one substance is benzoyl peroxide or benzoyl peroxide derivative in a concentration of 20% (grams/100 cc)

(b) at least one substance is tretinoin in a concentration of .1% (grams/100 cc)

151. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a shampoo
- (b) at least one substance is a hair conditioner

152. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a Tretinoin
- 10 (b) at least one substance is a Hydroquinone

153. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a Tretinoin
- (b) at least one substance is a topical antibiotic

154. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Urea

155. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- 20 (b) at least one substance is a Salicylic Acid

156. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Lactic Acid

157. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Praxoxine

158. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- 10 (b) at least one substance is a Tretinoin

159. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Hydroquinone

160. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a Ketoconazole

161. A preparation which is applied to various surfaces to obtain
20 a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is a steroid cream
- (b) at least one substance is a antibiotic

162. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device of claim 1, wherein:

- (a) at least one substance is Minoxidil
- (b) at least one substance is Tretinoic Acid

163. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device to claim 1, wherein:

- (a) at least one substance is Anthrenol
- (b) at least one substance is a steroid cream

164. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device to claim 1, wherein:

- (a) at least one substance is Tretinoin
- 10 (b) at least one substance is benzoyl peroxide

165. A preparation which is applied to various surfaces to obtain a desired effect which is housed in a device to claim 1, wherein:

- (a) at least one substance is a nail polish
- (b) at least one substance is a nail polish remover